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| 10/047,860      | 01/15/2002  | John R. Hind         | RSW920010181US1     | 5123             |

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EXAMINER

ABEL JALIL, NEVEEN

ART UNIT PAPER NUMBER

2165

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/047,860

Applicant(s)

HIND ET AL.

Examiner

Neveen Abel-Jalil

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on August 18, 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Remarks

1. The Request for Reconsideration filed on August 18, 2005 has been received and entered. Claims 1-19 are pending.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al. (U.S. Patent Publication Application, 2002/00658899, ('Smith')).

### **Smith discloses:**

As to claim 1,

a universal database connectivity driver having a first exposed interface through which access to a database server can be provided; See [0071]; [0072];

a database proxy driver registered with said universal database connectivity driver, said database proxy driver having a second exposed interface which conforms with said first exposed

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interface of said universal database connectivity driver, said database proxy driver having a configuration for invoking at least one auxiliary task in addition to providing access to said database server through said first exposed interface of said universal database connectivity driver; See [0057]; [0059]; and

a database driven application programmatically linked to said database proxy driver; See [0016].

As to claim 2,

wherein each of said universal database connectivity driver, database proxy driver and database driven application are disposed in an edge device in a computer communications network; See [0030].

As to claim 3,

wherein said auxiliary task is load balancing; See [0034].

As to claim 4,

wherein said auxiliary task is caching; See [0035].

As to claim 5,

a log file of data request meta-information; See [0036]; and,

an application analyzer configured to tune operation of said auxiliary task based upon said meta-information; See [0036].

As to claim 6,

receiving a database connectivity request through a corresponding first exposed database connectivity method from a database driven application; See [0071]; [0072];

forwarding said database connectivity request to an underlying database connectivity driver through a corresponding second exposed method having a method prototype which matches a method prototype of said first exposed database connectivity method; See [0057]; [0059]; and,

performing at least one auxiliary task in addition to forwarding said database connectivity request; See [0030].

As to claims 7 and 14,

performing each of the receiving, forwarding and performing steps in an edge device; See [0035].

As to claims 8 and 15,

wherein said performing step comprises performing a load balancing task; See [0034].

As to claims 9 and 16,

wherein said performing step comprises performing a database caching task; See [0035].

As to claims 10 and 17,

collecting meta-data for each received database connectivity request; See [0035]; and,  
modifying operation of said auxiliary task based upon an analysis of said collected meta-data; See [0038].

As to claims 11 and 19,

wherein said modifying step comprises generating rules which direct database connectivity requests to particular instances of a database server which are most likely to respond quickly based upon database latency patterns inherent in said collected meta-data; See [0038].

As to claim 12,

wherein said modifying step comprises selectively caching result sets in a database cache based upon request frequency patterns inherent in said collected meta-data; See [0037]; [0038].

As to claim 13,

receiving a database connectivity request through a corresponding first exposed database connectivity method from a database driven application; See [0071]; [0072];

forwarding said database connectivity request to an underlying database connectivity driver through a corresponding second exposed method having a method prototype which matches a method prototype of said first exposed database connectivity method; See [0057]; [0059]; and,

performing at least one auxiliary task in addition to forwarding said database connectivity request; See [0030].

As to claim 18,

wherein said modifying step comprises generating rules which direct database connectivity requests to particular instances of a database server which are most likely to respond quickly based upon database latency patterns inherent in said collected meta-data; See [0036].

#### *Response to Arguments*

4. Applicant's arguments filed on August 18, 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that "The Examiner does not teach or suggest or clearly designate the teachings in Smith being relied upon nor clearly explained in the pertinence of Smith" have been considered but it is not deemed to be persuasive.

The Examiner maintains that Smith teaches the claimed limitation. Smith must be considered as whole and not just the suggested citations relied on by the Examiner. The Applicant is responsible for the whole reference. See 37 CFR 1.192(c)(8)(iv).

The Smith reference is directed to a method for delivering dynamic content through an edge router.

In response to applicant's argument that "The Applicant is forced to guess which features in the Smith reference are covered by paragraphs cited pertaining to claim 1" have been considered but it is not deemed to be persuasive.

The Examiner maintains the Smith reference as a whole teach the limitations of claim 1, specifically “universal database” and “connectivity driver”, page 3, paragraph 0033, wherein origin site containing “central database” connects to clients. While a “database server” is shown in Figure 4, as “Web server” which too has a driver in order to be able to connect to the rest of the network disclosed on page 7, paragraph 0075. A “database driven application” is taught in Figure 4, 412, Application Server, which has access to database, 130. All those drivers are well known middleware connectivity.

In response to applicant’s argument that “Claim 1 recites that access to the database server from the database proxy driver is provided though the universal database connectivity driver which Smith does not show” have been considered but it is not deemed to be persuasive.

The Examiner maintains that Smith in Figures 1 and 3 show the Edge Cache as an intermediary device. On page 5, paragraph 0056, the “Edge Cache 108” is clearly shown as an intermediary between the origin site (i.e. “Web server”) and clients.

In response to applicant’s argument that “Smith does not teach a driver separate from the claimed database proxy driver” have been considered but it is not deemed to be persuasive.

The Examiner maintains that on page 7, paragraph 0072, the ODBC is taught as being “isolated” which is broadly interpreted as being separate from the subsequent teachings of “proxy driver of the database” that is only invoked if necessary as stated in paragraph 0075.

It is clear to the Examiner that two different and separate parts of the system that Smith discloses, it is well known in the art that more than one driver is necessary in order for Figure 1



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to function properly and Smith teaches the functionality and driver connectivity throughout the reference.

In response to applicant's argument that "Smith fails to teach that each driver includes an exposed interface that conforms with one another" have been considered but it is not deemed to be persuasive.

The Examiner maintains since both the database proxy driver and the universal database driver are communicating in the same network and are defined as such in Smith Figure 1, their interfaces are conforming to each other and are deemed to be exposed since they are accessible by all clients who wish to be connected on the Internet Figure 1, 110, Network.

In response to applicant's argument that "The teachings in Smith are not comparable to the claimed feature that the universal database connectivity driver, database proxy driver and database driven application are disposed in the edge device" have been considered but it is not deemed to be persuasive.

The Examiner maintains that the Edge device has a cache (see page 7, paragraph 0074) wherein upon receiving a database request, it determines if the request is needed to be proxied then it will be forwarded to right processing logic. Therefore, it is clear that the edge device has all the stated drivers in order to process specified requests intermediary between the client and the origin site as taught in paragraph 0075 (connectivity to database and connectivity to the client are shown).

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Davis et al. (U.S. Pub. No. 2003/0135509 A1) teaches edge server having an application server.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Neveen Abel-Jalil  
October 31, 2005

  
**CHARLES RONES**  
**SUPERVISORY PATENT EXAMINER**